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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,157	06/19/2003	Madhavi W. Chandra	CISCP326/247013	5810
22434	7590	10/27/2009		
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EXAMINER				
PATEL, CHIRAG R				
ART UNIT		PAPER NUMBER		
2454				
NOTIFICATION DATE		DELIVERY MODE		
10/27/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USPTO@wavsip.com

### Office Action Summary

**Application No.**

10/600,157

**Applicant(s)**

CHANDRA ET AL.

**Examiner**

CHIRAG R. PATEL

**Art Unit**

2454

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,5,7-10,12-27,29-37 and 39-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7-10,12-27,29-37 and 39-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 8/28/09
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 28, 2009 has been entered.

***Response to Arguments***

Applicant's arguments with respect to claims 1-51 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 42, 45 and 47 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claims 42, 45, and 47, the broadest reasonable interpretation of "computer readable medium" is directed to non-statutory subject matter and includes signals and carrier waves. Applicant's disclosure states per [0070], "The invention may also be embodied in a carrier wave traveling over an appropriate medium such as

airwaves, optical lines, electric lines, etc.". It is suggested that the claims and the specification to read "a non-transitory computer readable storage medium".

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 21-27, 29, 45-46, 49 and 51 are rejected under 35 U.S.C. 102(e) as being anticipated by Chowdhury et al. – hereinafter Chowdhury (US 2004/0022212).

As per claims 21 and 45-46, Chowdhury discloses In a AAA server, a method of initiating the release of resources in a first Packet Data Serving Node (PDSN), comprising:

receiving by the AAA server an access request message from a second PDSN, ([0035]; Figure 2: item 216) the access request message including a username identifier identifying a user, ([0033]; mobile user network access identifier [NA1] ), a session identifier identifying a session associated with the user, ([0042] : The token is an identifier for the session established by the NAI) and a PDSN identifier identifying the

first PDSN; ([0010] PDSN, provides its IP address (care-of address) to the HA during mobile station registration)

sending by the AAA server an access accept message to the second PDSN in response to the access request message; and ([0037]; Figure 2: item 224)

sending by the AAA server a disconnect request message to the first PDSN indicating a request to release resources associated with the session, ([0013]; a disconnect request signal either to the new NAS (for delivery to the old NAS) or directly to the old NAS to prompt the old NAS to release IP session resources allocated for the mobile station; Figure 2: item 226) thereby enabling the first PDSN to release the resources prior to expiration of a PPP session timer; ([0033]; FIG. 2 generally illustrates a solution that takes advantage of an AAA server's knowledge of the current PDSN (NAS address) for a mobile user (network access identifier [NAI]); [0052]; Unless released according to the method of the present invention, the resources allocated to the MS by the old PDSN will be reserved until the expiration of a lifetime timer or a registration timer.)

wherein the first PDSN releases the resources associated with the session in response to receiving the disconnect request message, ([0048]; [0052]; Figure 7: item 706) wherein the resources are released prior to expiration of a PPP session timer; ([0033]; FIG. 2 generally illustrates a solution that takes advantage of an AAA server's knowledge of the current PDSN (NAS address) for a mobile user (network access identifier [NAI]); [0052]; Unless released according to the method of the present

invention, the resources allocated to the MS by the old PDSN will be reserved until the expiration of a lifetime timer or a registration timer.)

wherein the resources comprise memory ([0050]) and wherein the session is a PPP session. ([0052]; PPP connection)

As per claim 22, Chowdhury discloses the method as recited in claim 21, wherein the disconnect request message further indicates that the resources associated with the session are no longer needed. ([0038])

As per claim 23, Chowdhury discloses the method as recited in claim 21, wherein the disconnect request message further indicates that a node associated with the user has moved. ([0038])

As per claim 24, Chowdhury discloses the method as recited in claim 23, wherein the node is a mobile node. ([0038])

As per claim 25, Chowdhury discloses the method as recited in claim 21, wherein the disconnect request message requests that the first PDSN disconnect the user for the session identified by the session identifier. ([0052]; Figure 7: item 706)

As per claim 26, Chowdhury discloses the method as recited in claim 21, wherein the AAA server is a home AAA server associated with a home network of the user.

([0052])

As per claim 27, Chowdhury discloses the method as recited in claim 21, wherein the disconnect request message comprises a source PDSN identifier identifying the first PDSN, ([0010] PDSN, provides its IP address (care-of address) to the HA during mobile station registration)

a username identifier identifying a user associated with the Mobile IP session, ([0033]; mobile user network access identifier [NA1] ),and a session identifier identifying a session associated with the user to be terminated by the first PDSN. ([0042] : The token is an identifier for the session established by the NAI)

As per claim 29, Chowdhury discloses the method as recited in claim 27, further comprising:

receiving by the AAA server a disconnect acknowledgement message from the first PDSN indicating that the first PDSN has successfully disconnected the user. ([0053]; Figure 7: item 708)

As per claim 49, Chowdhury discloses the PDSN as recited in claim 44, wherein the disconnect request message is not received from another PDSN. ([0013]; directly to the old NAS to prompt the old NAS to release IP session resources allocated for the mobile station; Figure 2: item 226)

As per claim 51, Chowdhury discloses the AAA server as recited in claim 46, wherein the disconnect request message is sent to the first PDSN prior to expiration of a PPP session timer, ([0033]; FIG. 2 generally illustrates a solution that takes advantage of an AAA server's knowledge of the current PDSN (NAS address) for a mobile user (network access identifier [NAI]); [0052]; Unless released according to the method of the present invention, the resources allocated to the MS by the old PDSN will be reserved until the expiration of a lifetime timer or a registration timer.)

the disconnect request message triggering the release of resources associated with the session. ([0048]; [0052]; Figure 7: item 706)

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5, 10, 15-16, 42-44 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borella (US 7,346,684) in view of Chowdhury (US 2004/0022212) .



As per claims 1 and 42-44, Borella discloses in a Packet Data Serving Node (PDSN), a method of releasing resources, comprising

sending by the PDSN an access request message to a first AAA server for authentication of a node; (Col 22 lines 37-58; PDSN 232 queries the AAA server 1102 for the authentication data of the mobile node 210)

receiving by the PDSN an access accept message from the first AAA server; (Col 22 lines 37-58; PDSN 232 receives the authentication data of the mobile node 210 from the AAA server 1102)

establishing by the PDSN a Mobile IP session as a Foreign Agent for the node when an access accept message is received from the first AAA server; (Col 22 lines 37-58; 232 may initiate PAP/CHAP negotiations 1216 with the mobile node 210 to establish a communication link between the mobile node 210 and the PDSN 232)

storing by the PDSN information associated with the node in resources associated with the PDSN; (Col 6 line 56-Col 7 line 7; Col 22 lines 59 – Col 23 line 10)

Borella fails to disclose receiving by the PDSN a disconnect request message from the first AAA server; and releasing by the PDSN the resources when the disconnect request message is received,

wherein the resources are released independent of expiration of a PPP session timer; wherein the resources comprise memory and the information comprises PPP information associated with a PPP session.

Chowdhury discloses receiving by the PDSN a disconnect request message from the first AAA server; ([0013]; a disconnect request signal either to the new NAS (for

delivery to the old NAS) or directly to the old NAS to prompt the old NAS to release IP session resources allocated for the mobile station; Figure 2: item 226) and releasing by the PDSN the resources when the disconnect request message is received, ([0048]; [0052]; Figure 7: item 706)

wherein the resources are released independent of expiration of a PPP session timer; ([0033]; FIG. 2 generally illustrates a solution that takes advantage of an AAA server's knowledge of the current PDSN (NAS address) for a mobile user (network access identifier [NAI]); [0052]; Unless released according to the method of the present invention, the resources allocated to the MS by the old PDSN will be reserved until the expiration of a lifetime timer or a registration timer.)

wherein the resources comprise memory ([0050]) and the information comprises PPP information associated with a PPP session. ([0052]; PPP connection)

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify Borella to disclose receiving by the PDSN a disconnect request message from the first AAA server; and releasing by the PDSN the resources when the disconnect request message is received, wherein the resources are released independent of expiration of a PPP session timer; wherein the resources comprise memory and the information comprises PPP information associated with a PPP session.

The motivation would have been to reduce the sheer waste of resources and may possibly degrade network capacity when the CDMA2000 networks grow. ([0033])

As per claim 5, Borella / Chowdhury disclose the method as recited in claim 1. Borella discloses the information is associated with the Mobile IP session. (Col 1 lines 7-11)

As per claim 10, please see the discussion under claim 27 as similar logic applies.

As per claim 15-16, please see the discussion under claim 29 as similar logic applies.

As per claim 50, Borella / Chowdhury disclose the method as recited in claim 1. Chowdhury discloses wherein the resources are released prior to expiration of a PPP session timer. ([0033]; FIG. 2 generally illustrates a solution that takes advantage of an AAA server's knowledge of the current PDSN (NAS address) for a mobile user (network access identifier [NAI]); [0052]; Unless released according to the method of the present invention, the resources allocated to the MS by the old PDSN will be reserved until the expiration of a lifetime timer or a registration timer.)

Claims 3, 7-9, 12-14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Borella (US 7,346,684 / Chowdhury (US 2004/0022212) further in view of Raman et al. – hereinafter Raman (US 2004/0018829)

As per claim 3, Borella / Chowdhury disclose the method as recited in claim 1. Borella fails to disclose wherein the disconnect message is received by the PDSN from a second AAA server via the first AAA server. Raman discloses wherein the disconnect message is received by the PDSN from a second AAA server via the first AAA server. ([0266]) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify Borella to disclose wherein the disconnect message is received by the PDSN from a second AAA server via the first AAA server. The motivation would have been to replenish used credit and purchase new credits for prepaid services by the PDSN. ([0270])

As per claim 7, Borella / Chowdhury disclose the method as recited in claim 3. Raman discloses wherein the first AAA server is a visited AAA server associated with a foreign network and the second AAA server is a home AAA server associated with a home network of the node. ([0251])

As per claim 8, Borella / Chowdhury disclose the method as recited in claim 3. Raman discloses wherein the first AAA server is a visited AAA server associated with a foreign network and the second AAA server is the visited AAA server associated with the foreign network. ([0251])

As per claim 9, Borella / Chowdhury disclose the method as recited in claim 3. Raman discloses the method as recited in claim 3, wherein the access request

message and access reply message are RADIUS messages, and the first and second AAA servers are RADIUS servers. ([0245])

As per claim 12, Borella / Chowdhury disclose the method as recited in claim 3. Raman discloses wherein the disconnect request message is triggered by a second access request message sent to the second AAA server ([0266]) by a second PDSN to which the node has roamed. ([0233])

As per claim 13, Borella / Chowdhury / Raman disclose the method as recited in claim 12. Chowdhury discloses wherein the disconnect request message is sent after an accept message is sent by the second AAA server to the first AAA server. ([0013]; a disconnect request signal either to the new NAS (for delivery to the old NAS) or directly to the old NAS to prompt the old NAS to release IP session resources allocated for the mobile station; Figure 2: item 226)

As per claim 14, Borella / Chowdhury / Raman disclose the method as recited in claim 12. Chowdhury discloses wherein the access request message and the second access request message each comprise a RADIUS access request message ([0050]) including a username identifier identifying a user associated with the Mobile IP session, ([0033]; mobile user network access identifier [NA1]) a session identifier identifying a session associated with the user, ([0042] : The token is an identifier for the session

established by the NAI) and a PDSN identifier identifying the PDSN. ([0010] PDSN, provides its IP address (care-of address) to the HA during mobile station registration)

As per claim 17, Borella / Chowdhury / Raman disclose the method of claim 3. Chowdhury discloses further comprising: sending by the PDSN a disconnect acknowledgement message to the second AAA server, the disconnect acknowledgement message indicating that the PDSN has successfully disconnected the user. ([0053])

Claim 18-19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Borella (US 7,346,684) / Chowdhury (US 2004/0022212) in view of Moller et al.- hereinafter Moller (US 2003/0028598)

As per claims 18-19, please see the discussion under claim 30 as similar logic applies.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Borella (US 7,346,684) / Chowdhury (US 2004/0022212) / (US 2004/0018829) in view of Moller et al.- hereinafter Moller (US 2003/0028598)

As per claim 20, please see the discussion under claim 30 as similar logic applies.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chowdhury (US 2004/0022212) in view of Moller et al.- hereinafter Moller (US 2003/0028598)

As per claim 30, Chowdhury discloses the method as recited in claim 27. Chowdhury fails to disclose receiving by the AAA server a disconnect non-acknowledgement message from the first PDSN indicating that the first PDSN is unable to disconnect the user. Moller discloses sending a non-acknowledgement in the event of an error ([0090]-[0091]) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify Chowdhury to disclose receiving by the AAA server a disconnect non-acknowledgement message from the first PDSN indicating that the first PDSN is unable to disconnect the user. The motivation would have been to notify the requesting device of an error ([0091])

Claims 31-41 and 47-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chowdhury (US 2004/0022212) in view of Raman et al. – hereinafter Raman (US 2004/0018829).

As per claims 31 and 47-48, Chowdhury discloses in a first AAA server, a method of initiating the release of resources in a first Packet Data Serving Node (PDSN), comprising:

the access accept message including a username identifier identifying a user, ([0033]; mobile (user network access identifier [NA1]) ) a session identifier identifying a session associated with the user, ([0042] : The token is an identifier for the session established by the NAI) and a PDSN identifier identifying the first PDSN; ([0010] PDSN, provides its IP address (care-of address) to the HA during mobile station registration) and

sending by the first AAA server a disconnect request message to the PDSN identifier identifying the first PDSN, ([0013]; a disconnect request signal either to the new NAS (for delivery to the old NAS) or directly to the old NAS to prompt the old NAS to release IP session resources allocated for the mobile station; Figure 2: item 226) the disconnect request message indicating a request to release resources associated with the session, ([0013], [0048]; [0052]; Figure 7: item 706) wherein the disconnect request message is sent to the PDSN independent of whether a PPP session timer has expired; ([0033]; FIG. 2 generally illustrates a solution that takes advantage of an AAA server's knowledge of the current PDSN (NAS address) for a mobile user (network access identifier [NAI]); [0052]; Unless released according to the method of the present invention, the resources allocated to the MS by the old PDSN will be reserved until the expiration of a lifetime timer or a registration timer)



wherein the first PDSN releases the resources associated with the session in response to receiving the disconnect request message, ([0048]; [0052]; Figure 7: item 706) wherein the resources are released independent of expiration of a PPP session timer; ([0033]; FIG. 2 generally illustrates a solution that takes advantage of an AAA server's knowledge of the current PDSN (NAS address) for a mobile user (network access identifier [NAI]); [0052]; Unless released according to the method of the present invention, the resources allocated to the MS by the old PDSN will be reserved until the expiration of a lifetime timer or a registration timer) Chowdhury fails to disclose receiving by the first AAA server an access accept message from a second AAA server. Raman discloses receiving by the first AAA server an access accept message from a second AAA server. ([0269]; auth-accept message) At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify Chowdhury to disclose receiving by the first AAA server an access accept message from a second AAA server. The motivation would have been to replenish used credit and purchase new credits for prepaid services by the PDSN. ([0270])

As per claim 32, please see the discussion under claim 22 as similar logic applies.

As per claim 33, please see the discussion under claim 23 as similar logic applies.

As per claim 34, please see the discussion under claim 24 as similar logic applies.

As per claim 35, please see the discussion under claim 25 as similar logic applies.

As per claim 36, Chowdhury / Raman disclose the method as recited in claim 31. Raman disclose wherein the second AAA is a home AAA server associated with a home network of a user, and the first AAA server is a visited AAA server associated with a foreign network. ([0112])

As per claim 37, please see the discussion under claim 27 as similar logic applies.

As per claim 39, please see the discussion under claim 29 as similar logic applies.

As per claim 40, please see the discussion under claim 30 as similar logic applies.

As per claim 41, Chowdhury / Raman disclose the method as recited in claim 31. Chowdhury discloses wherein the disconnect request message is sent when the access accept message is received by the first AAA server. ([0013]; a disconnect request signal either to the new NAS (for delivery to the old NAS) or directly to the old NAS to prompt the old NAS to release IP session resources allocated for the mobile station; Figure 2: item 226)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag R Patel whose telephone number is (571)272-7966. The examiner can normally be reached on Monday to Friday from 8:00AM to 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn, can be reached on (571) 272-1915.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pairedirect.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

/C. R. P./  
Examiner, Art Unit 2454

/NATHAN FLYNN/  
Supervisory Patent Examiner, Art Unit 2454